CLAIMS

What is claimed is:

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1   1.   A method of executing a transaction task within a transaction

2   processing system, the method including:

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4   responsive to an event, identifying a workflow associated with the

5   event; and

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7   distributing a task, that at least partially executes the workflow, to an

8   available thread within a pool of threads operating within a

9   multiprocessor system.

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1   2.   The method of claim 1 wherein the event comprises a transaction

2   event and the task comprises a transaction task responsive to a transaction

3   request associated with the transaction event.

1   3.   The method of claim 2 wherein the transaction task comprises a

2   transaction routing task that routes the transaction request associated with

3   the transaction event to an agent of the transaction processing system.

1   4.   The method of claim 2 within the transaction task comprises a

2   transaction information task to either store or retrieve information pertinent

3   to a transaction.

1   5.   The method of claim 1 wherein the task has a real-time priority and is

2   distributed in accordance with the real-time priority to the available thread

3   within the pool of threads.

1   6.   The method of claim 1 including identifying a processor affinity

2   attributed to the task, and assigning the available thread to a processor

3   within the multiprocessor system according to the processor affinity

4   attributed to the task.

1   7.   The method of claim 1 including assigning the available thread to a

2   processor within the multiprocessor system according to a thread priority.

1   8.   The method of claim 7 including assigning the thread priority to the

2   available thread based on a priority of the task distributed to the available

3   thread.

1   9.   Apparatus for executing a transaction task within a transaction

2   processing system, the apparatus comprising:

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4   a dispatcher to identify a workflow associated with an event; and

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6   a thread within a pool of threads operating within a multiprocessor

7   system to execute a task that at least partially executes the workflow

8   associated with the event.

1   10.   The apparatus of claim 9 wherein the dispatcher generates the task

2   that at least partially executes the workflow.

1   11.   The apparatus of claim 10 including a task queue to which the task is

2   dispatch by the dispatcher, and from which the thread within the pool of

3   threads receives the task.

1   12.   The apparatus of claim 11 including a scheduler that issues the task

2   from the task queue to the thread within the pool of threads.

1   13.   The apparatus of claim 12 wherein the scheduler issues the task from

2   the task queue to the thread within the pool of threads based on a priority

3   associated with the task.

1   14.   The apparatus of claim 13 wherein the scheduler issues the task from

2   the task queue according to a priority dynamically assigned to the task.

1 15.   The apparatus of claim 13 wherein the scheduler issues the task from

2 the task queue according to a real-time priority assigned to the task.

1 16.   The apparatus of claim 9 wherein the task comprises a transaction

2 routing task that routes a transaction request associated with the event to an

3 agent of the transaction processing system.

1 17.   The apparatus of claim 9 within the task comprises a transaction

2 information task to either store or retrieve information pertinent to a

3 transaction.

1 18.   The apparatus of claim 9 including a dispatcher to identify a

2 processor affinity attributed to the task, and to assign the thread to a

3 processor within the multiprocessor system according to the processor

4 affinity attributed to the task.

1 19.   The apparatus of claim 9 including to assign the thread to a processor

2 within the multiprocessor system according to a thread priority.

1 20.   The apparatus of claim 19 including assigning the thread priority to

2 the thread based on a priority of the task distributed to the thread.

1 21.   A method of operating a transaction processing system employing a

2   multiprocessor architecture, the method including:

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4   establishing a queue of tasks, the queue of tasks including tasks for

5   both system and transactional functions, and

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7   servicing the queue of tasks utilizing a pool of threads executable

8   within a systematic multiprocessor environment.

1   22.   The method of claim 21 wherein the tasks for the system functions

2   include any one of reporting, administration or maintenance tasks

3   performed within the transaction processing system.

1   23.   The method of claim 21 wherein the tasks for the transactional

2   functions include any one of routing, transaction data storage or transaction

3   data retrieval tasks performed to facilitate a transaction within the

4   transaction processing system.